



# BASIC™ 50

## OPERATING GUIDE

**CAUTION**  
TO PREVENT ELECTRICAL SHOCK OR FIRE HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. BEFORE USING THIS APPLIANCE, READ BACK COVER FOR FURTHER WARNINGS.

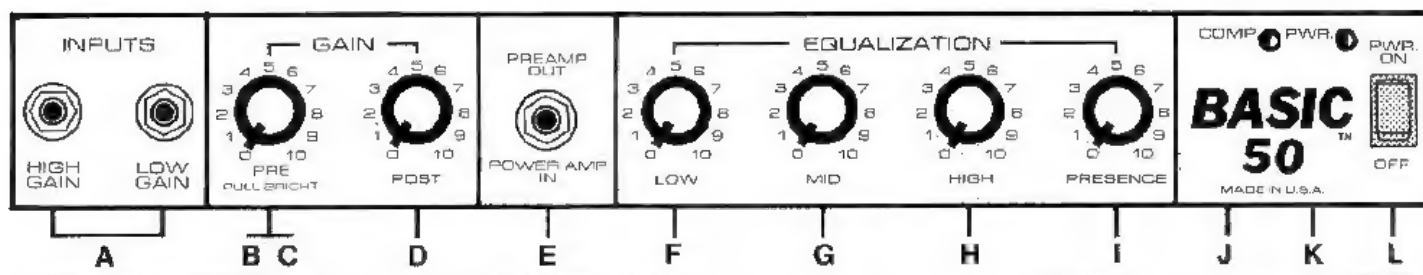


The Basic™ 50 is the smallest, lightest and least expensive model of the complete line of Peavey bass amplification systems. But don't let the small size and budget price fool you; the Basic 50 is indeed a professional system in quality and performance, and it shares many important features with larger, more powerful Peavey models.

The Basic 50 will produce over 50 watts RMS into an 8 ohm load. It is equipped with an extremely heavy-duty 12" loudspeaker. The chassis and speaker are housed in a ruggedly constructed enclosure made of 3/4" materials and covered with 34 ounce fabric-reinforced Tolex®. Plated steel corners, glides, chassis straps and a heavy-duty steel reinforced carrying handle improve durability and insure continued good looks. The Basic 50 is very portable and will please both the student bass player and the professional for rehearsal, studio or small concert applications.

Our DDT™ compression circuit (U.S. Pat. #4,318,053) maximizes the Basic 50's performance so the amp does not run out of power (headroom) as easily as other manufacturers' systems. The DDT compression circuit eliminates most amplifier clipping, and keeps potentially hazardous clipping distortion from reaching the speaker. We have also included four bands of equalization, a preamp out/power amp in effects loop, pre and post gain controls, and our very popular "Pull Bright" control.

All of these features add up to an unbeatable bass system within this price and power range. Compare our quality, features and performance with other similarly priced bass amplifiers. You'll find the Peavey Basic 50 is your best buy.



#### (A) HIGH GAIN AND LOW GAIN INPUTS

The high gain input is the most sensitive and should be used first under normal conditions unless an extremely "hot" (high level) signal is patched into the Basic 50. If the high gain input should distort the signal, then you should consider using the low gain input. The low gain input is 6 dB less sensitive and will allow the preamp to take much more signal at the input without premature distortion. If overload is audible then you should determine if the *preamp* is overloading or if the system is running out of power (headroom) with the internal power amplifier. Our *DDT* compression circuit will virtually eliminate any power amp distortion so it is fairly simple to determine if the preamp is being overloaded. Most instruments will patch, as mentioned above, into the high gain jack but occasionally a stronger signal, such as an instrument with a preamp built in, etc. should be plugged into the low gain input.

#### (B) PULL BRIGHT

The Pull Bright feature is activated with the pre gain control knob and is simply a pull/push type switch which gives a "brightness boost" at very high frequencies. This control may be used to emphasize pick noise or finger noise as the bass or other instrument is played. To *activate* this control, simply *pull* out the pre gain control, and to *deactivate* this feature simply *push* the control back.

#### (C) PRE GAIN CONTROL

The pre gain control is labeled from 0 to 10 and works conventionally. This is the first control that your signal reaches after being patched through the input jack. This control *must* be used in conjunction with the post gain control for optimum performance.

#### (D) POST GAIN CONTROL

The Post Gain Control is a *master volume* control. This feature determines the overall signal level of the preamp, which is fed to the internal power amplifier. For concert (loud) applications, the post gain should be adjusted to a fairly high setting, so that the system will operate at maximum levels and remain as clean as possible. For studio and other low level applications, the post gain may be backed down to a 4 or 5 setting to optimize residual preamp noise for demanding studio applications. For normal situations, the post gain should be set somewhere around 7 to 10 so that *headroom* is not drastically reduced and then the instrument gain should be set with the *pre* gain control. Be careful not to adjust the *post* gain to a *lower* setting than the *pre* gain setting when clean operation is desired. Many times overload harmonics are desired for certain applications and those may be obtained with a very low setting of the *post* gain and a fairly *high* setting of the *pre* gain control.

#### (E) PREAMP OUT/POWER AMP INPUT

The preamp out/power amp in jack is located on the front panel and is a stereo or two-position type jack. In order to interface an effects device or any additional equalizer, etc. into the Basic 50 system a stereo 1/4" phone plug must be used. The preamp output is on the tip of a typical stereo plug and the power amp in is on the ring or the second position of the plug (see Diagram A). When a preamp output only is desired, it is obtained by using a mono 1/4" phone plug inserted only to the first click. Care should be taken not to insert a *mono* phone plug all the way into the second position, because the preamp output would be obtained but the power amp would be switched off. In certain studio applications, however, this second patch with a mono phone plug is desirable when the internal speaker and internal power amp is not needed. For patching in effects devices, the stereo phone plug should be wired as follows: The *tip* connection (which is the preamp output) should go to the input of the effects device, and the output of the effects device should be connected to the second position of a stereo phone plug, which is the ring. **Shielded cords should be used for all preamp applications!** Peavey offers a patch cord for this purpose in our accessory program (see Diagrams B & C; "Y" Stereo Patch Cable, Peavey Part #0005299).

#### (F) LOW EQ CONTROL

The Low EQ Control is designed to enhance low fundamentals and harmonics for typical bass guitar applications. This control is conventional in operation and is labeled 0 to 10 and allows increased bass frequency emphasis with clockwise settings. When the system needs to be extremely "dry" with less response for the extreme lows, the control should be operated near counterclockwise rotation. Care should be taken not to overemphasize bass response with extreme lows because headroom normally suffers under these conditions. With the Basic 50, we are dealing with a moderately powered amplifier and extreme amounts of bass boost will result in significantly less headroom and overall performance.

#### (G) MID EQ CONTROL

The Mid EQ Control controls the all important mid-band which greatly affects the timbre and the overall tonal coloration of most any string instrument. The Basic 50 may be equalized for the desired amount of midrange punch that is necessary to create those tones that are popular in the studio and during concert situations with this control. This control operates on a 0 to 10 number scale and clockwise rotation indicates more emphasis for the mids while counterclockwise operation indicates less mids and a much drier overall tonality. Proper adjustment of the midrange EQ is vital to the overall sound of many instruments and you should experiment with this control using your particular bass guitar and be familiar with the different tonalities that can be achieved by rotating from full counterclockwise to fully clockwise.

#### (H) HIGH EQ CONTROL

The High EQ Control determines the overall balance of high frequencies in the response of the Basic 50. The action of this control is similar to that of the low frequency and the mid controls except for its high frequency effect. More high frequency content is obtained with clockwise positions while less emphasis is placed on the highs with counterclockwise operation.

#### (I) PRESENCE EQ CONTROL

The Presence control boosts the high frequency response. This control may be utilized to obtain that extreme high frequency boost that is necessary for playing thumb-slap bass or for any reason where the extreme highs need to be emphasized. Pick noise and fingernail noise may be greatly increased by rotation of the presence control clockwise. By the same token, a player who desires to have *none* of the pick noise or finger noise reproduced may eliminate a great degree of extreme highs by operating the Presence control near its counterclockwise position. The operation of this control is conventional and you will note that it affects full frequencies above the frequency band of the high control.

#### (J) DDT™ COMPRESSION

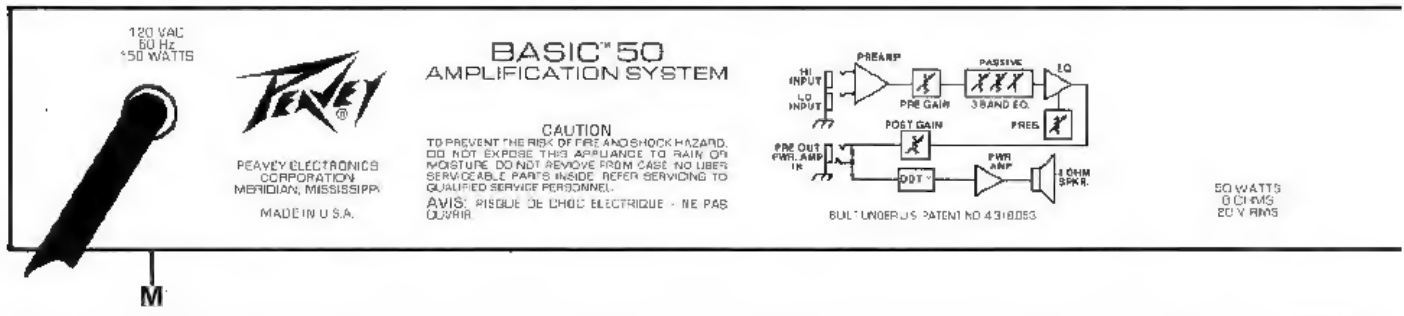
Your Basic 50 is equipped with our patented DDT (Distortion Detection Technique) compression circuit which senses the onset of clipping in the power amplifier and allows the system to remain clean. This feature drastically reduces distortion which is normally heard when the speaker receives a clipped (distorted) signal from the power amplifier section. Speakers last much longer and the program material remains much cleaner with the DDT system. There is an LED indicator on the front panel of the amplifier which indicates when the system has gone into compression. There is no need to panic when this light begins to flash as it is merely stating that the system has reached its full power and no more output will be obtained in excess of the power limitations. In a system without DDT, the amplifier will continue to try to produce more power than its rated output and this would be noticed in the form of distortion.

#### (K) POWER LED

The LED on the front panel which is labeled Power (PWR.) notifies the operator that the unit is receiving power from the AC mains and it is ready for operation.

#### (L) POWER ON/OFF SWITCH

The front panel of the Basic 50 includes the on/off power switch and this device is a conventional two-position rocker type with the *on* indication at the top and the *off* indication at the bottom.



#### BACK PANEL

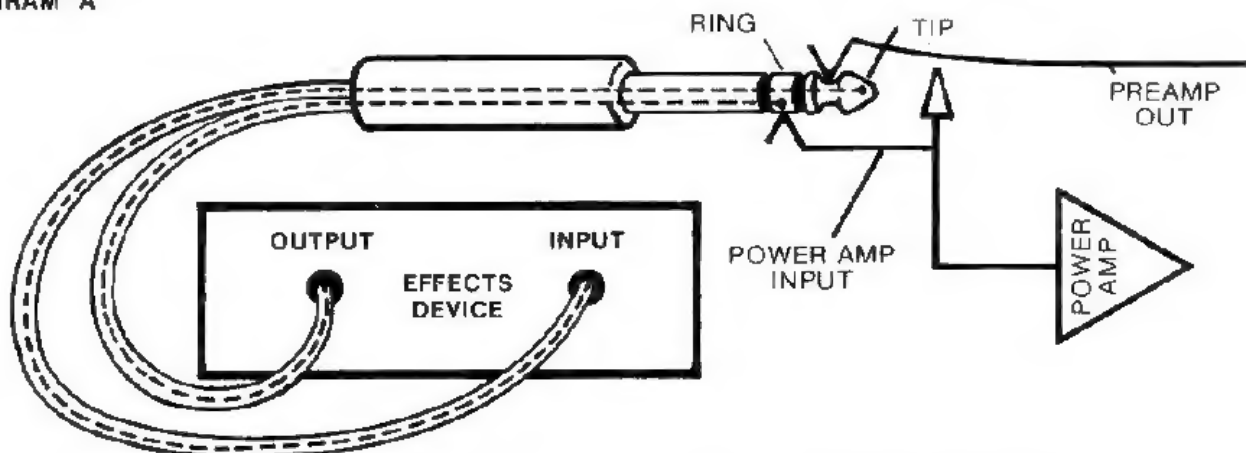
##### (M) LINE CORD

For your safety, we have incorporated a three-wire line (mains cable) with proper grounding facilities. It is not advisable to remove the ground pin under any circumstances. If it is necessary to use the amp without proper grounding facilities, suitable grounding adaptors should be used. Much less noise and greatly reduced shock hazards exist when the unit is operated with the proper grounded receptacles.

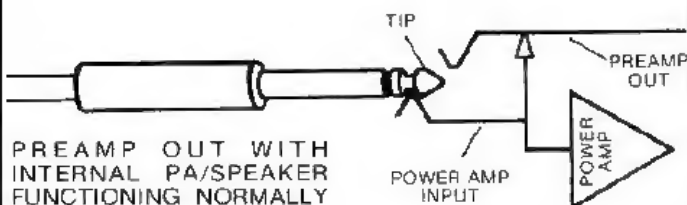
##### LINE (MAINS) CORD RETAINERS

We have provided two large molded line cord retainers on the rear panel to allow storage of the mains cable for travel. In operation the cable should be *completely* unwrapped to allow maximum heat dissipation from the rear panel.

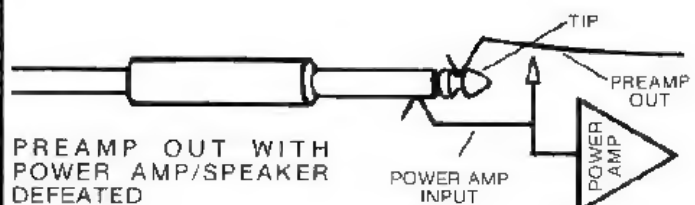
#### DIAGRAM "A"



#### DIAGRAM "B"



#### DIAGRAM "C"



## BASIC™ 50 SPECIFICATIONS

### POWER AMPLIFIER SECTION:

#### RATED POWER & LOAD:

50W RMS into 8 ohms with DDT™ compression and LED indicator

#### POWER AT CLIPPING (typically 5% THD, 1 kHz, 120 VAC line):

36W RMS into 16 ohms  
57W RMS into 8 ohms  
45W RMS into 4 ohms  
2 ohms not recommended

#### FREQUENCY RESPONSE:

+0, -2 dB, 60 Hz to 10 kHz at 50W RMS into 8 ohms

#### TOTAL HARMONIC DISTORTION:

Less than 0.2%, 100 mW to 50W RMS,  
60 Hz to 10 kHz, 8 ohms; typically below 0.1%

#### DDT™ DYNAMIC RANGE:

Greater than 16 dB

#### DDT™ MAXIMUM THD:

Below 0.5% THD for 6 dB overload  
Below 1% THD for 16 dB overload

#### HUM & NOISE:

Greater than 90 dB below rated power

#### POWER CONSUMPTION (Domestic):

150W, 50/60 Hz, 120 VAC

#### PREAMP SECTION:

THE FOLLOWING SPECS ARE MEASURED AT 1 kHz WITH THE  
CONTROLS PRESET AS FOLLOWS:

Pre Gain/Pull Bright Off (In)

Post Gain at 10

Low EQ at 10

Mid EQ at 0

High EQ at 10

Presence EQ at 5

Nominal Levels are set with Pre Gain at 5

Minimum Levels are set with Pre Gain at 10

#### PREAMP HIGH GAIN INPUT:

Impedance: High Z, 220K ohms

Nominal Input Level: -24 dBV, 60 mV RMS

Minimum Input Level: -46 dBV, 5 mV RMS

Maximum Input Level: +6 dBV, 2V RMS

#### PREAMP LOW GAIN INPUT:

Impedance: High Z, 44K ohms

Nominal Input Level: -18 dBV, 120 mV RMS

Minimum Input Level: -40 dBV, 10 mV RMS

Maximum Input Level: +12 dBV, 4V RMS

#### PREAMP OUTPUT (Tip of Stereo Jack):

Load Impedance: 10K ohms or greater

Nominal Output: 0 dBV, 1V RMS

#### POWER AMP INPUT (Ring of Stereo Jack):

Impedance: High Z, 22K ohms

Designed Input Level: 0 dBV, 1V RMS

#### SYSTEM HUM & NOISE AT NOMINAL INPUT LEVEL (20 Hz to 20 kHz, unweighted):

74 dB below rated power

#### EQUALIZATION:

Low, Mid & High Passive Type EQ

Presence Active Type EQ

Pull Bright: +6 dB at 2 kHz

Due to our efforts for constant improvement, features and specifications are subject to change without notice.

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**DANGER**

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY IN SUSCEPTIBILITY TO NOISE INDUCED HEARING LOSS. BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.

THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

DURATION PER DAY IN HOURS	SOUND LEVEL dBA, SLOW RESPONSE
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4	115

OSHA 1983

ACCORDING TO OSHA, ANY EXPOSURE IN EXCESS OF THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS.

EARPLUGS OR PROTECTIVE DEVICES IN THE EAR CANALS FOR OVER THE EAR MUST BE WORN WHEN OPERATING THIS AMPLIFIER SYSTEM TO PREVENT A PERMANENT HEARING LOSS IF EXPOSURE IS IN EXCESS OF THE LIMITS AS SET FORTH ABOVE. TO AVOID HEARING POTENTIALLY DANGEROUS EXPOSURE TO HIGH SOUND PRESSURE LEVELS, IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS SUCH AS THIS AMPLIFIER SYSTEM BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

**CAUTION**

THIS AMPLIFIER HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE POWER RESERVE FOR PLAYING MODERN MUSIC WHICH MAY REQUIRE OCCASIONAL PEAK POWER. TO HANDLE OCCASIONAL PEAK POWER, ADEQUATE POWER "HEADROOM" HAS BEEN DESIGNED INTO THIS SYSTEM. EXTENDED OPERATION AT ABSOLUTE MAXIMUM POWER LEVEL IS NOT RECOMMENDED SINCE THIS COULD DAMAGE THE ASSOCIATED LOUSPEAKER SYSTEM. PLEASE BE AWARE THAT MAXIMUM POWER CAN BE OBTAINED WITH VERY LOW SETTINGS OF THE GAIN CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, heater, radiator or another heat producing amplifier.
8. Connect or retract power supply cord to the plug marked on the unit.
9. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding".
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag, or an ammonia based household cleaner if necessary.
13. Care should be taken so that cords do not fall into the unit or through the ventilation holes or any other openings.
14. This unit should be checked by a qualified service technician if:
  - A. The power supply cord or plug has been damaged.
  - B. Anything has fallen or been spilled into the unit.
  - C. The unit does not operate correctly.
  - D. The unit has been dropped or the enclosure damaged.
15. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.



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